WHAT IS CLAIMED IS:

1. A composition comprising a glycoprotein having an immunoglobulin CH2 domain said CH2 domain having at least one N-linked oligosaccharide wherein substantially all of the oligosaccharide is a G2 oligosaccharide.

2. The composition of claim 1 wherein the glycoprotein is an antibody.

3. The composition of claim 2 wherein the antibody is a monoclonal antibody.

4. The composition of claim 3 wherein the antibody is an IgG.

5. The composition of claim 4 wherein the IgG is human IgG_1.

6. The composition of claim 5 wherein the monoclonal antibody is selected from the group consisting of an anti-CD20 specific monoclonal antibody, an anti-HER2 specific monoclonal antibody, and anti-VEGF specific monoclonal antibody, and an anti-IgE specific monoclonal antibody.

7. The composition of claim 1 wherein the glycoprotein is an immunoadhesin.

8. The composition of claim 7 wherein the immunoadhesin is a tumor necrosis factor-immunoglobulin G1 chimera.

9. The composition of claim 1 wherein the glycoprotein is

an antibody-immunoadhesin chimera.

10. A method of producing the composition of claim 1 comprising the steps of

reacting in an aqueous buffered solution at a temperature of about 25-40° C;

a) a metal salt at a concentration of about 5 mM to about 25 mM;

b) an activated galactose at a concentration of about 5 mM to about 50 mM;

c) a galactosyltransferase at a concentration of about 1 mUnit/ml to about 100 mUnit/ml;

d) a substrate glycoprotein; and

recovering the glycoprotein.

11. The method of claim 10 wherein the metal salt is selected from the group consisting of Mn2++, Ca2++, and Ba2++.

12. The method of claim 11 wherein the activated galactose is uridine diphosphate-galactose (UDP-galactose).

13. The method of claim 12 wherein the galactosyl transferase is a mammalian β1-4, galactosyl transferase.

14. The method of claim 13 wherein the reaction temperature is about 37° C, the metal salt is Mn2++ at a concentration of about 5 mM, the UDP-galactose concentration is about 5mM and the β 1-4 galactosyl transferase concentration is about 1 mUnit/ml.

15. The method of claim 14 wherein the glycoprotein is an antibody.

16. The method of claim 15 wherein the antibody is an IgG.

17. The method of claim 16 wherein the IgG is human IgG_1.

18. The method of claim 17 wherein the monoclonal antibody is selected from the group consisting of an anti-CD20 specific monoclonal antibody, an anti-HER2 specific monoclonal antibody, and anti-VEGF specific monoclonal antibody, and an anti-IgE specific monoclonal antibody.

19. The method of claim 13 wherein the glycoprotein is an immunoadhesin.

20. The method of claim 19 wherein the immunoadhesin is a bispecific immunoadhesin.

21. The method of claim 13 wherein the glycoprotein is an antibody-immunoadhesin chimera.

22. A method for the treatment of a disease state comprising administering to a mammal in need thereof a therapeutically effective dose of the composition of claim 1.

23. A method for the treatment of a disease state comprising administering to a mammal in need thereof a therapeutically effective dose of the composition of claim 6.

24. The method of claim 22 wherein the disease state is selected from the group consisting of inflammatory disorder, cancer, neurofibromatosis, peripheral neuropathologies, and cardiac hypertrophy.

25. A pharmaceutical composition comprising the composition of claim 1 and a pharmaceutically acceptable carrier.

26. A pharmaceutical composition comprising the composition of claim 6 and a pharmaceutically acceptable carrier.

27. A pharmaceutical composition comprising the composition of claim 7 and a pharmaceutically acceptable carrier.

28. An article of manufacture, comprising:

a container;

a label on said container; and

the composition of claim 1 contained within said container;

29. The article of claim 28 wherein the label on the container indicates that the composition can be used for the treatment of cancer.